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Patent

11. (Twice Amended) A method of manufacturing a fluid ejection device comprising:

forming a masking layer over a first surface of a substrate;

patterning and etching the masking layer to form a hole therethrough, wherein the hole exposes the substrate;

depositing a first layer over the masking layer and in the hole on the exposed substrate;

patterning and etching the first layer to form a plug in the hole; and

etching a second surface opposite the first surface of the substrate until a bottom surface of the plug is substantially exposed and a slot in the substrate is substantially formed, wherein the plug substantially plugs up the slot.

24. (Twice Amended) A process comprising:

forming a first masking layer over a front side of a silicon substrate;

patterning and etching the first masking layer to form a hole therethrough, wherein the hole exposes the substrate;

depositing a front side protection layer over the first masking layer and in the hole on the exposed substrate;

patterning and etching the front side protection layer over the hole;

forming a second masking layer over the back side of the substrate;

patterning and etching the second masking layer;

etching a back side of the substrate with an alkaline etchant until a bottom surface of the front side protection layer in the hole is substantially exposed and a slot in the substrate is substantially formed; and

etching with a buffered oxide etch to remove the front side protection layer after etching the back side of the substrate to form the slot through the substrate, wherein the plug substantially plugs up the slot.

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Patent

Please add the following new claim:

31. A method of manufacturing a fluid ejection device comprising:
forming a masking layer over a front side of a substrate;
patterning and etching the masking layer to form a hole therethrough;
depositing a first layer over the masking layer and in the hole;
patterning and etching the first layer to form a plug in the hole; and
etching from a back side of the substrate to an interface of the substrate and the
first layer at the plug, thereby substantially forming a fluid slot in the substrate with the
plug substantially plugging up the slot.

REMARKS

Claims 1, 11, and 24 have been amended for clarity. Claims 19-23, and 27-30 have been withdrawn. Claim 31 has been added. Accordingly, claims 1-18, 24-26 and 31 are currently pending.

Pursuant to 37 CFR 1.21(c)(1), a marked up version of the claims is submitted herewith showing the changes between the previous version of the claims, and the amended claims. The amended claims include the same changes as are indicated in the marked up copy. Applicant respectfully requests that the amended claims be entered in this case. Reconsideration on the basis of the above amendments and remarks below is kindly requested.

Restriction has been required under 35 U.S.C. 121. Group I is directed to claims 1-18 and 24-26, and Group II is directed to claims 19-23 and 27-30. Applicant affirms election to prosecute the invention of Group I, claims 1-18 and 24-26, without traverse.

Claims 1, 11 and 13 have been rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Lee et al. Claims 1, 3-11, 16-18 have been rejected under 35 USC 103(a) as allegedly being unpatentable over Then in view of Bower. Claim 2 has been rejected under 35 USC 103(a) as allegedly being unpatentable over Then in view of Bower as applied above, and further in view of Shimada. Claims 12, 14, 15 have been rejected under 35 USC 103(a) as allegedly being unpatentable over Lee as applied above, and further in view of Shimada. Claims 24-26 have been rejected under 35 USC 103(a) as allegedly being unpatentable over Then in view of Bower as applied above, and further in view of Lai. These rejections are respectfully traversed.